Release notes for ENDF/B Development n-092_U_236 evaluation

April 26, 2017

- **checkr** Warnings:

  1. A previous error halted parsing of the current section
     MAT=9231, MF= 1, MT=451 (1): Parsing stopped

     ```
     ERROR(S) FOUND IN MAT=9231, MF= 1, MT=451
         SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER     470 TO     604
     ```

- **checkr** Errors:

  1. A variable is outside the allowed ENDF range
     MAT=9231, MF= 1, MT=451 (0): Variable range

     ```
     ERROR(S) FOUND IN MAT=9231, MF= 1, MT=451
         MOD =     1 OUT OF RANGE     0 -     0          RECORD NUMBER     470
     ```

  2. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 1, MT=452 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=9231, MF= 1, MT=452
         SECTION  1/452 NOT IN DIRECTORY             RECORD NUMBER     605
     ```

  3. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 1, MT=455 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=9231, MF= 1, MT=455
         SECTION  1/455 NOT IN DIRECTORY             RECORD NUMBER     617
     ```

  4. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 1, MT=456 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=9231, MF= 1, MT=456
         SECTION  1/456 NOT IN DIRECTORY             RECORD NUMBER     627
     ```

  5. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 1, MT=458 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=9231, MF= 1, MT=458
         SECTION  1/458 NOT IN DIRECTORY             RECORD NUMBER     639
     ```

  6. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 2, MT=151 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=9231, MF= 2, MT=151
         SECTION  2/151 NOT IN DIRECTORY             RECORD NUMBER     646
     ```

  7. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 3, MT= 1 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT=  1
          SECTION  3/  1 NOT IN DIRECTORY                RECORD NUMBER    931
```

8. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=9231, MF= 3, MT= 2 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT=  2
          SECTION  3/  2 NOT IN DIRECTORY                RECORD NUMBER    1038
```

9. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=9231, MF= 3, MT= 3 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT=  3
          SECTION  3/  3 NOT IN DIRECTORY                RECORD NUMBER    1145
```

10. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 4 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT=  4
          SECTION  3/  4 NOT IN DIRECTORY                RECORD NUMBER    1251
```

11. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 16 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 16
          SECTION  3/ 16 NOT IN DIRECTORY                RECORD NUMBER    1333
```

12. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 17 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 17
          SECTION  3/ 17 NOT IN DIRECTORY                RECORD NUMBER    1372
```

13. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 18 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 18
          SECTION  3/ 18 NOT IN DIRECTORY                RECORD NUMBER    1398
```

14. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 19 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 19
          SECTION  3/ 19 NOT IN DIRECTORY                RECORD NUMBER    1483
```

15. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 20 (0): Directory (b)

2

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 20
           SECTION  3/ 20 NOT IN DIRECTORY                  RECORD NUMBER    1568
```

16. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 21 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 21
           SECTION  3/ 21 NOT IN DIRECTORY                  RECORD NUMBER    1622
```

17. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 37 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 37
           SECTION  3/ 37 NOT IN DIRECTORY                  RECORD NUMBER    1649
```

18. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 38 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 38
           SECTION  3/ 38 NOT IN DIRECTORY                  RECORD NUMBER    1663
```

19. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 51 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 51
           SECTION  3/ 51 NOT IN DIRECTORY                  RECORD NUMBER    1681
```

20. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 52 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 52
           SECTION  3/ 52 NOT IN DIRECTORY                  RECORD NUMBER    1763
```

21. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 53 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 53
           SECTION  3/ 53 NOT IN DIRECTORY                  RECORD NUMBER    1838
```

22. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 54 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 54
           SECTION  3/ 54 NOT IN DIRECTORY                  RECORD NUMBER    1910
```

23. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 55 (0): Directory (b)

3

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 55
           SECTION  3/ 55 NOT IN DIRECTORY                 RECORD NUMBER    1979
```

24. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 56 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 56
           SECTION  3/ 56 NOT IN DIRECTORY                 RECORD NUMBER    2046
```

25. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 57 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 57
           SECTION  3/ 57 NOT IN DIRECTORY                 RECORD NUMBER    2113
```

26. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 58 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 58
           SECTION  3/ 58 NOT IN DIRECTORY                 RECORD NUMBER    2179
```

27. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 59 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 59
           SECTION  3/ 59 NOT IN DIRECTORY                 RECORD NUMBER    2244
```

28. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 60 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 60
           SECTION  3/ 60 NOT IN DIRECTORY                 RECORD NUMBER    2308
```

29. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 61 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 61
           SECTION  3/ 61 NOT IN DIRECTORY                 RECORD NUMBER    2372
```

30. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 62 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 62
           SECTION  3/ 62 NOT IN DIRECTORY                 RECORD NUMBER    2435
```

31. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 63 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 63
         SECTION  3/ 63 NOT IN DIRECTORY                    RECORD NUMBER    2498
```

32. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=64$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 64
         SECTION  3/ 64 NOT IN DIRECTORY                    RECORD NUMBER    2561
```

33. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=65$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 65
         SECTION  3/ 65 NOT IN DIRECTORY                    RECORD NUMBER    2623
```

34. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=66$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 66
         SECTION  3/ 66 NOT IN DIRECTORY                    RECORD NUMBER    2685
```

35. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=67$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 67
         SECTION  3/ 67 NOT IN DIRECTORY                    RECORD NUMBER    2746
```

36. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=68$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 68
         SECTION  3/ 68 NOT IN DIRECTORY                    RECORD NUMBER    2807
```

37. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=69$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 69
         SECTION  3/ 69 NOT IN DIRECTORY                    RECORD NUMBER    2867
```

38. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=70$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 70
         SECTION  3/ 70 NOT IN DIRECTORY                    RECORD NUMBER    2927
```

39. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=71$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 71
   SECTION  3/ 71 NOT IN DIRECTORY                  RECORD NUMBER    2987
```

40. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=72$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 72
   SECTION  3/ 72 NOT IN DIRECTORY                  RECORD NUMBER    3046
```

41. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=73$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 73
   SECTION  3/ 73 NOT IN DIRECTORY                  RECORD NUMBER    3104
```

42. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=74$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 74
   SECTION  3/ 74 NOT IN DIRECTORY                  RECORD NUMBER    3161
```

43. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=75$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 75
   SECTION  3/ 75 NOT IN DIRECTORY                  RECORD NUMBER    3217
```

44. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=76$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 76
   SECTION  3/ 76 NOT IN DIRECTORY                  RECORD NUMBER    3271
```

45. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=77$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 77
   SECTION  3/ 77 NOT IN DIRECTORY                  RECORD NUMBER    3324
```

46. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=78$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 78
   SECTION  3/ 78 NOT IN DIRECTORY                  RECORD NUMBER    3376
```

47. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=3$, $MT=79$ (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 79
            SECTION  3/ 79 NOT IN DIRECTORY                    RECORD NUMBER    3427
```

48. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 80 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 80
            SECTION  3/ 80 NOT IN DIRECTORY                    RECORD NUMBER    3477
```

49. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 81 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 81
            SECTION  3/ 81 NOT IN DIRECTORY                    RECORD NUMBER    3526
```

50. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 82 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 82
            SECTION  3/ 82 NOT IN DIRECTORY                    RECORD NUMBER    3574
```

51. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 83 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 83
            SECTION  3/ 83 NOT IN DIRECTORY                    RECORD NUMBER    3621
```

52. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 84 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 84
            SECTION  3/ 84 NOT IN DIRECTORY                    RECORD NUMBER    3667
```

53. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 85 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 85
            SECTION  3/ 85 NOT IN DIRECTORY                    RECORD NUMBER    3711
```

54. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 86 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 86
            SECTION  3/ 86 NOT IN DIRECTORY                    RECORD NUMBER    3754
```

55. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 3, MT= 87 (0): Directory (b)

7

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 87
    SECTION  3/ 87 NOT IN DIRECTORY                 RECORD NUMBER    3797
```

56. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF= 3, MT= 88 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 88
    SECTION  3/ 88 NOT IN DIRECTORY                 RECORD NUMBER    3839
```

57. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF= 3, MT= 89 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 89
    SECTION  3/ 89 NOT IN DIRECTORY                 RECORD NUMBER    3880
```

58. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF= 3, MT= 90 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 90
    SECTION  3/ 90 NOT IN DIRECTORY                 RECORD NUMBER    3921
```

59. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF= 3, MT= 91 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT= 91
    SECTION  3/ 91 NOT IN DIRECTORY                 RECORD NUMBER    3961
```

60. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF= 3, MT=102 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 3, MT=102
    SECTION  3/102 NOT IN DIRECTORY                 RECORD NUMBER    4020
```

61. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF= 4, MT= 2 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 4, MT=  2
    SECTION  4/  2 NOT IN DIRECTORY                 RECORD NUMBER    4087
```

62. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF= 4, MT= 18 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 18
    SECTION  4/ 18 NOT IN DIRECTORY                 RECORD NUMBER    4673
```

63. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF= 4, MT= 19 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 19
          SECTION  4/ 19 NOT IN DIRECTORY                    RECORD NUMBER    4676
```

64. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=4$, $MT=20$ (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 20
          SECTION  4/ 20 NOT IN DIRECTORY                    RECORD NUMBER    4679
```

65. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=4$, $MT=21$ (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 21
          SECTION  4/ 21 NOT IN DIRECTORY                    RECORD NUMBER    4682
```

66. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=4$, $MT=38$ (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 38
          SECTION  4/ 38 NOT IN DIRECTORY                    RECORD NUMBER    4685
```

67. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=4$, $MT=51$ (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 51
          SECTION  4/ 51 NOT IN DIRECTORY                    RECORD NUMBER    4688
```

68. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=4$, $MT=52$ (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 52
          SECTION  4/ 52 NOT IN DIRECTORY                    RECORD NUMBER    4862
```

69. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=4$, $MT=53$ (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 53
          SECTION  4/ 53 NOT IN DIRECTORY                    RECORD NUMBER    5031
```

70. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=4$, $MT=54$ (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 54
          SECTION  4/ 54 NOT IN DIRECTORY                    RECORD NUMBER    5128
```

71. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231$, $MF=4$, $MT=55$ (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 55
          SECTION  4/ 55 NOT IN DIRECTORY              RECORD NUMBER    5218
```

72. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 4, MT= 56 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 56
          SECTION  4/ 56 NOT IN DIRECTORY              RECORD NUMBER    5297
```

73. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 4, MT= 57 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 57
          SECTION  4/ 57 NOT IN DIRECTORY              RECORD NUMBER    5379
```

74. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 4, MT= 58 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 58
          SECTION  4/ 58 NOT IN DIRECTORY              RECORD NUMBER    5458
```

75. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 4, MT= 59 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 59
          SECTION  4/ 59 NOT IN DIRECTORY              RECORD NUMBER    5538
```

76. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 4, MT= 60 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 60
          SECTION  4/ 60 NOT IN DIRECTORY              RECORD NUMBER    5613
```

77. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 4, MT= 61 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 61
          SECTION  4/ 61 NOT IN DIRECTORY              RECORD NUMBER    5690
```

78. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 4, MT= 62 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 62
          SECTION  4/ 62 NOT IN DIRECTORY              RECORD NUMBER    5767
```

79. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=9231, MF= 4, MT= 63 (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 63
             SECTION  4/ 63 NOT IN DIRECTORY                RECORD NUMBER    5839
```

80. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231, MF= 4, MT= 64$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 64
             SECTION  4/ 64 NOT IN DIRECTORY                RECORD NUMBER    5915
```

81. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231, MF= 4, MT= 65$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 65
             SECTION  4/ 65 NOT IN DIRECTORY                RECORD NUMBER    5989
```

82. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231, MF= 4, MT= 66$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 66
             SECTION  4/ 66 NOT IN DIRECTORY                RECORD NUMBER    6064
```

83. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231, MF= 4, MT= 67$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 67
             SECTION  4/ 67 NOT IN DIRECTORY                RECORD NUMBER    6139
```

84. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231, MF= 4, MT= 68$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 68
             SECTION  4/ 68 NOT IN DIRECTORY                RECORD NUMBER    6214
```

85. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231, MF= 4, MT= 69$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 69
             SECTION  4/ 69 NOT IN DIRECTORY                RECORD NUMBER    6289
```

86. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231, MF= 4, MT= 70$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 70
             SECTION  4/ 70 NOT IN DIRECTORY                RECORD NUMBER    6364
```

87. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231, MF= 4, MT= 71$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 71
    SECTION  4/ 71 NOT IN DIRECTORY               RECORD NUMBER    6439
```

88. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231, MF= 4, MT= 72$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 72
    SECTION  4/ 72 NOT IN DIRECTORY               RECORD NUMBER    6514
```

89. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231, MF= 4, MT= 73$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 73
    SECTION  4/ 73 NOT IN DIRECTORY               RECORD NUMBER    6604
```

90. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231, MF= 4, MT= 74$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 74
    SECTION  4/ 74 NOT IN DIRECTORY               RECORD NUMBER    6677
```

91. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231, MF= 4, MT= 75$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 75
    SECTION  4/ 75 NOT IN DIRECTORY               RECORD NUMBER    6748
```

92. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231, MF= 4, MT= 76$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 76
    SECTION  4/ 76 NOT IN DIRECTORY               RECORD NUMBER    6817
```

93. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231, MF= 4, MT= 77$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 77
    SECTION  4/ 77 NOT IN DIRECTORY               RECORD NUMBER    6884
```

94. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231, MF= 4, MT= 78$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 78
    SECTION  4/ 78 NOT IN DIRECTORY               RECORD NUMBER    6951
```

95. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=9231, MF= 4, MT= 79$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 79
             SECTION  4/ 79 NOT IN DIRECTORY                    RECORD NUMBER    7016
```

96. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231$, $MF=4$, $MT=80$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 80
             SECTION  4/ 80 NOT IN DIRECTORY                    RECORD NUMBER    7081
```

97. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231$, $MF=4$, $MT=81$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 81
             SECTION  4/ 81 NOT IN DIRECTORY                    RECORD NUMBER    7146
```

98. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231$, $MF=4$, $MT=82$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 82
             SECTION  4/ 82 NOT IN DIRECTORY                    RECORD NUMBER    7211
```

99. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231$, $MF=4$, $MT=83$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 83
             SECTION  4/ 83 NOT IN DIRECTORY                    RECORD NUMBER    7274
```

100. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231$, $MF=4$, $MT=84$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 84
             SECTION  4/ 84 NOT IN DIRECTORY                    RECORD NUMBER    7337
```

101. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231$, $MF=4$, $MT=85$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 85
             SECTION  4/ 85 NOT IN DIRECTORY                    RECORD NUMBER    7398
```

102. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231$, $MF=4$, $MT=86$ (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 86
             SECTION  4/ 86 NOT IN DIRECTORY                    RECORD NUMBER    7459
```

103. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=9231$, $MF=4$, $MT=87$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 87
         SECTION  4/ 87 NOT IN DIRECTORY                    RECORD NUMBER    7518
```

104. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 4, MT= 88 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 88
         SECTION  4/ 88 NOT IN DIRECTORY                    RECORD NUMBER    7577
```

105. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 4, MT= 89 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 89
         SECTION  4/ 89 NOT IN DIRECTORY                    RECORD NUMBER    7636
```

106. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 4, MT= 90 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 4, MT= 90
         SECTION  4/ 90 NOT IN DIRECTORY                    RECORD NUMBER    7695
```

107. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 5, MT= 18 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 5, MT= 18
         SECTION  5/ 18 NOT IN DIRECTORY                    RECORD NUMBER    7755
```

108. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 5, MT= 19 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 5, MT= 19
         SECTION  5/ 19 NOT IN DIRECTORY                    RECORD NUMBER    7764
```

109. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 5, MT= 20 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 5, MT= 20
         SECTION  5/ 20 NOT IN DIRECTORY                    RECORD NUMBER    7773
```

110. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 5, MT= 21 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 5, MT= 21
         SECTION  5/ 21 NOT IN DIRECTORY                    RECORD NUMBER    7782
```

111. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=9231, MF= 5, MT= 38 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF= 5, MT= 38
          SECTION  5/ 38 NOT IN DIRECTORY                    RECORD NUMBER    7791
```

112. Missing a section in directory so your directory is messed up. This error will break everything else
     $MAT=9231, MF= 5, MT=455 (0): Directory (b)$

```
      ERROR(S) FOUND IN MAT=9231, MF= 5, MT=455
          SECTION  5/455 NOT IN DIRECTORY                    RECORD NUMBER    7799
```

113. Missing a section in directory so your directory is messed up. This error will break everything else
     $MAT=9231, MF= 6, MT= 16 (0): Directory (b)$

```
      ERROR(S) FOUND IN MAT=9231, MF= 6, MT= 16
          SECTION  6/ 16 NOT IN DIRECTORY                    RECORD NUMBER    8390
```

114. Missing a section in directory so your directory is messed up. This error will break everything else
     $MAT=9231, MF= 6, MT= 17 (0): Directory (b)$

```
      ERROR(S) FOUND IN MAT=9231, MF= 6, MT= 17
          SECTION  6/ 17 NOT IN DIRECTORY                    RECORD NUMBER    9626
```

115. Missing a section in directory so your directory is messed up. This error will break everything else
     $MAT=9231, MF= 6, MT= 37 (0): Directory (b)$

```
      ERROR(S) FOUND IN MAT=9231, MF= 6, MT= 37
          SECTION  6/ 37 NOT IN DIRECTORY                    RECORD NUMBER    10272
```

116. Missing a section in directory so your directory is messed up. This error will break everything else
     $MAT=9231, MF= 6, MT= 91 (0): Directory (b)$

```
      ERROR(S) FOUND IN MAT=9231, MF= 6, MT= 91
          SECTION  6/ 91 NOT IN DIRECTORY                    RECORD NUMBER    10480
```

117. Missing a section in directory so your directory is messed up. This error will break everything else
     $MAT=9231, MF= 8, MT= 16 (0): Directory (b)$

```
      ERROR(S) FOUND IN MAT=9231, MF= 8, MT= 16
          SECTION  8/ 16 NOT IN DIRECTORY                    RECORD NUMBER    13139
```

118. Missing a section in directory so your directory is messed up. This error will break everything else
     $MAT=9231, MF= 8, MT= 17 (0): Directory (b)$

```
      ERROR(S) FOUND IN MAT=9231, MF= 8, MT= 17
          SECTION  8/ 17 NOT IN DIRECTORY                    RECORD NUMBER    13142
```

119. Missing a section in directory so your directory is messed up. This error will break everything else
     $MAT=9231, MF= 8, MT=102 (0): Directory (b)$

```
      ERROR(S) FOUND IN MAT=9231, MF= 8, MT=102
         SECTION  8/102 NOT IN DIRECTORY                  RECORD NUMBER   13145
```

120. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF=12, MT= 18 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF=12, MT= 18
         SECTION 12/ 18 NOT IN DIRECTORY                  RECORD NUMBER   13149
```

121. Missing a gamma spectrum for continuum of gammas
MAT=9231, MF=12, MT= 18 (1): No gamma spectrum

```
      ERROR(S) FOUND IN MAT=9231, MF=12, MT= 18
         CONTINUUM PHOTONS REQUIRE A SECTION IN MF=15
```

122. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF=12, MT=102 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF=12, MT=102
         SECTION 12/102 NOT IN DIRECTORY                  RECORD NUMBER   13154
```

123. Missing a gamma spectrum for continuum of gammas
MAT=9231, MF=12, MT=102 (1): No gamma spectrum

```
      ERROR(S) FOUND IN MAT=9231, MF=12, MT=102
         CONTINUUM PHOTONS REQUIRE A SECTION IN MF=15
```

124. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF=13, MT= 3 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF=13, MT=  3
         SECTION 13/  3 NOT IN DIRECTORY                  RECORD NUMBER   13173
```

125. Missing a gamma spectrum for continuum of gammas
MAT=9231, MF=13, MT= 3 (1): No gamma spectrum

```
      ERROR(S) FOUND IN MAT=9231, MF=13, MT=  3
         CONTINUUM PHOTONS REQUIRE A SECTION IN MF=15
```

126. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF=14, MT= 3 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF=14, MT=  3
         SECTION 14/  3 NOT IN DIRECTORY                  RECORD NUMBER   13215
```

127. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF=14, MT= 18 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF=14, MT= 18
         SECTION 14/ 18 NOT IN DIRECTORY                  RECORD NUMBER   13217
```

128. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=9231, MF=14, MT=102 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF=14, MT=102
         SECTION 14/102 NOT IN DIRECTORY              RECORD NUMBER   13219
```

129. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=9231, MF=15, MT= 3 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF=15, MT=  3
         SECTION 15/  3 NOT IN DIRECTORY              RECORD NUMBER   13222
```

130. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=9231, MF=15, MT= 18 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF=15, MT= 18
         SECTION 15/ 18 NOT IN DIRECTORY              RECORD NUMBER   13522
```

131. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=9231, MF=15, MT=102 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF=15, MT=102
         SECTION 15/102 NOT IN DIRECTORY              RECORD NUMBER   13555
```

132. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=9231, MF=31, MT=456 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF=31, MT=456
         SECTION 31/456 NOT IN DIRECTORY              RECORD NUMBER   17445
```

133. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=9231, MF=33, MT= 2 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF=33, MT=  2
         SECTION 33/  2 NOT IN DIRECTORY              RECORD NUMBER   17550
```

134. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=9231, MF=33, MT= 4 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF=33, MT=  4
         SECTION 33/  4 NOT IN DIRECTORY              RECORD NUMBER   17654
```

135. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=9231, MF=33, MT= 16 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=9231, MF=33, MT= 16
         SECTION 33/ 16 NOT IN DIRECTORY              RECORD NUMBER   17671
```

136. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF=33, MT= 18 (0): Directory (b)

```
    ERROR(S) FOUND IN MAT=9231, MF=33, MT= 18
        SECTION 33/ 18 NOT IN DIRECTORY                RECORD NUMBER   17677
```

137. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=9231, MF=33, MT=102 (0): Directory (b)

```
    ERROR(S) FOUND IN MAT=9231, MF=33, MT=102
        SECTION 33/102 NOT IN DIRECTORY                RECORD NUMBER   17781
```

- `psyche` Errors:

    1. A probability distribution is negative. This is bad.
    FILE 4 / SECTION 52 / DISTRIBUTION IS NEGATIVE / FROM -9.9587E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 1.9932E-04 (0): Neg. prob.

    ```
    FILE  4
       SECTION  52
             DISTRIBUTION IS NEGATIVE
                      FROM -9.9587E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  1.9932E-04
    ```

- `recent` Warnings:

    1. Statistical weight of certain L values were incorrect
    0: RRR goof (a)

    ```
    Calculate Cross Sections from Resonance Parameters (RECENT 2015-1)
    ===============================================================================
    Retrieval Criteria-----------        MAT
    File 2 Mimimum Cross Section- 1.0000E-10 (Standard Option)
    Reactions with No Background-    Output (Resonance Contribution)
    ... [508 more lines]
    ```

- `groupie` Errors:

    1. Very small elastic cross section found
    0: Small elastic

    ```
    Multi-Group and Multi-Band Parameters from ENDF/B Data (GROUPIE 2015-2)
    -----------------------------------------------------------------------
    ENDF/B Input and Output Data Filenames
    ENDFB.IN
    ENDFB.OUT
    ... [97 more lines]
    ```

- `fudge-4.0` Warnings:

    1. Missing a channel with a particular angular momenta combination
    resonances / resolved (Error # 1): missingResonanceChannel

```
WARNING: Missing a channel with angular momenta combination L = 0, J = 1.5 and S = 1.5 for "capture"
WARNING: Missing a channel with angular momenta combination L = 1, J = 0.5 and S = 1.5 for "capture"
WARNING: Missing a channel with angular momenta combination L = 1, J = 1.5 and S = 0.5 for "capture"
WARNING: Missing a channel with angular momenta combination L = 1, J = 1.5 and S = 1.5 for "capture"
         ... plus 1 more instances of this message
```

2. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
   Section 2 ((z,n)): / Form 'eval': (Error # 0): Condition num.

```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

3. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
   Section 3 (n[multiplicity:'2'] + U235): / Form 'eval': (Error # 0): Condition num.

```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

- `fudge-4.0` Errors:

  1. The spin statistical weights are off, indicating missing channels
     resonances / resolved / MultiLevel_BreitWigner (Error # 0): badSpinStatisticalWeights

```
WARNING: The spin statical weights for L=1 sums to 1.0, but should sum to 3.0.  You have too few channels for re
WARNING: The spin statical weights for L=1 sums to 1.0, but should sum to 3.0.  You have too few channels for re
```

  2. Found a negative probability
     reaction label 1: n + U236_e1 / Product: n / Distribution: / angularTwoBody - XYs2d: (Error # 0): Negative prob.

```
WARNING: Negative probabilities encountered. Incident energy: 2.6e7 eV, worst case: -0.0212664319196
WARNING: Negative probabilities encountered. Incident energy: 2.8e7 eV, worst case: -0.0525151523168
WARNING: Negative probabilities encountered. Incident energy: 3.e7 eV, worst case: -0.0329559518001
```

  3. Found a negative probability
     reaction label 2: n + U236_e2 / Product: n / Distribution: / angularTwoBody - XYs2d: (Error # 0): Negative prob.

```
WARNING: Negative probabilities encountered. Incident energy: 3.e7 eV, worst case: -0.103977892
```

  4. Calculated and tabulated Q values disagree.
     reaction label 42: n[multiplicity:'2'] + U235 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -6764870.623809814 eV vs -6.5448e6 eV!
```

  5. Energy range of data set does not match cross section range
     reaction label 42: n[multiplicity:'2'] + U235 / Product: U235 / Distribution: / uncorrelated - energy - XYs2d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (6572777.0 -> 30000000.0) vs (6572767.0 -> 30000000.0)
```

  6. Calculated and tabulated Q values disagree.
     reaction label 43: n[multiplicity:'3'] + U234 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -11462697.44589233 eV vs -1.18427e7 eV!
```

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7. Energy range of data set does not match cross section range
   *reaction label 43: n[multiplicity:'3'] + U234 / Product: U234 / Distribution: / uncorre-
   lated - energy - XYs2d: (Error # 0): Domain mismatch (a)*

   ```
   WARNING: Domain doesn't match the cross section domain: (11893300.0 -> 30000000.0) vs (11893310.0 -> 30000000.0)
   ```

8. Calculated and tabulated Q values disagree.
   reaction label 44: n[multiplicity:'4'] + U233 (Error # 0): Q mismatch

   ```
   WARNING: Calculated and tabulated Q-values disagree: -18979220.36126709 eV vs -1.86869e7 eV!
   ```

9. Energy range of data set does not match cross section range
   *reaction label 44: n[multiplicity:'4'] + U233 / Product: U233 / Distribution: / uncorre-
   lated - energy - XYs2d: (Error # 0): Domain mismatch (a)*

   ```
   WARNING: Domain doesn't match the cross section domain: (18766770.0 -> 30000000.0) vs (18766750.0 -> 30000000.0)
   ```

10. Calculated and tabulated Q values disagree.
    reaction label 46: U237 + gamma (Error # 0): Q mismatch

    ```
    WARNING: Calculated and tabulated Q-values disagree: 5103889.129699707 eV vs 5.1259e6 eV!
    ```

11. Energy range of data set does not match cross section range
    *production label 47: /reactionSuite/reactions/production[@label='47'] / Product: gamma
    / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

    ```
    WARNING: Domain doesn't match the cross section domain: (599000.0 -> 30000000.0) vs (1e-05 -> 30000000.0)
    ```

12. Energy range of data set does not match cross section range
    *production label 47: /reactionSuite/reactions/production[@label='47'] / Product: gamma
    / uncorrelated - energy - XYs2d: (Error # 0): Domain mismatch (a)*

    ```
    WARNING: Domain doesn't match the cross section domain: (599000.0 -> 30000000.0) vs (1e-05 -> 30000000.0)
    ```

13. Energy range of data set does not match cross section range
    *production label 47: /reactionSuite/reactions/production[@label='47'] / Product: gamma__a
    / Multiplicity: (Error # 0): Domain mismatch (a)*

    ```
    WARNING: Domain doesn't match the cross section domain: (309200.0 -> 600000.0) vs (1e-05 -> 30000000.0)
    ```

14. Energy range of data set does not match cross section range
    *production label 47: /reactionSuite/reactions/production[@label='47'] / Product: gamma__a
    / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

    ```
    WARNING: Domain doesn't match the cross section domain: (309200.0 -> 600000.0) vs (1e-05 -> 30000000.0)
    ```

15. Energy range of data set does not match cross section range
    *production label 47: /reactionSuite/reactions/production[@label='47'] / Product: gamma__b
    / Multiplicity: (Error # 0): Domain mismatch (a)*

    ```
    WARNING: Domain doesn't match the cross section domain: (149000.0 -> 600000.0) vs (1e-05 -> 30000000.0)
    ```

16. Energy range of data set does not match cross section range
    *production label 47: /reactionSuite/reactions/production[@label='47'] / Product: gamma__b
    / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

```
WARNING: Domain doesn't match the cross section domain: (149000.0 -> 600000.0) vs (1e-05 -> 30000000.0)
```

17. Energy range of data set does not match cross section range
    *production label 47: /reactionSuite/reactions/production[@label='47'] / Product: gamma_c
    / Multiplicity: (Error # 0): Domain mismatch (a)*

```
WARNING: Domain doesn't match the cross section domain: (1e-05 -> 600000.0) vs (1e-05 -> 30000000.0)
```

18. Energy range of data set does not match cross section range
    *production label 47: /reactionSuite/reactions/production[@label='47'] / Product: gamma_c
    / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)*

```
WARNING: Domain doesn't match the cross section domain: (1e-05 -> 600000.0) vs (1e-05 -> 30000000.0)
```

19. Multiplicity does not match sum of linked product multiplicities!
    multiplicitySum label 4: nonelastic total gamma multiplicity (Error # 0): summedMultiplicityMismatch

```
WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 0.18%
```

20. Energy range of data set does not match cross section range
    *fissionComponent label 1: /reactionSuite/fissionComponents/fissionComponent[@label='1']
    / Product: n / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain
    mismatch (a)*

```
WARNING: Domain doesn't match the cross section domain: (1e-05 -> 30000000.0) vs (2600000.0 -> 30000000.0)
```

21. Energy range of data set does not match cross section range
    *fissionComponent label 2: /reactionSuite/fissionComponents/fissionComponent[@label='2']
    / Product: n / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain
    mismatch (a)*

```
WARNING: Domain doesn't match the cross section domain: (1e-05 -> 30000000.0) vs (10400000.0 -> 30000000.0)
```

22. Energy range of data set does not match cross section range
    *fissionComponent label 3: /reactionSuite/fissionComponents/fissionComponent[@label='3']
    / Product: n / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain
    mismatch (a)*

```
WARNING: Domain doesn't match the cross section domain: (1e-05 -> 30000000.0) vs (16000000.0 -> 30000000.0)
```

- njoy2012   Warnings:

  1. If MT=19 is present, MT=18 will be ignored.
     heatr...prompt kerma (0): HEATR/hinit (2)

```
 ---message from hinit---mt18 is redundant
                        19, 20, 21, ... will be used.
```

  2. There is a problem with the fission energy release.
     heatr...prompt kerma (1): HEATR/nheat (3)

```
 ---message from nheat---changed q from    1.944900E+08 to    1.795100E+08
                        for mt   19
```

3. There is a problem with the fission energy release.
   heatr...prompt kerma (2): HEATR/nheat (3)

   ```
    ---message from nheat---changed q from    1.944900E+08 to    1.795100E+08
                             for mt   20
   ```

4. There is a problem with the fission energy release.
   heatr...prompt kerma (3): HEATR/nheat (3)

   ```
    ---message from nheat---changed q from    1.944900E+08 to    1.795100E+08
                             for mt   21
   ```

5. There is a problem with the fission energy release.
   heatr...prompt kerma (4): HEATR/nheat (3)

   ```
    ---message from nheat---changed q from    1.944900E+08 to    1.795100E+08
                             for mt   38
   ```

- `njoy2012`   Errors:

   1. An angular distribution is negative
      acer...monte carlo neutron and photon data (0): Neg. P(Ejµ) (b)

      ```
       ---message from ptleg2---negative probs found
                               26 for mt= 51 e= 2.600E+07
      ```

   2. An angular distribution is negative
      acer...monte carlo neutron and photon data (1): Neg. P(Ejµ) (b)

      ```
       ---message from ptleg2---negative probs found
                               54 for mt= 51 e= 2.800E+07
      ```

   3. An angular distribution is negative
      acer...monte carlo neutron and photon data (2): Neg. P(Ejµ) (b)

      ```
       ---message from ptleg2---negative probs found
                               91 for mt= 51 e= 3.000E+07
      ```

   4. An angular distribution is negative
      acer...monte carlo neutron and photon data (3): Neg. P(Ejµ) (b)

      ```
       ---message from ptleg2---negative probs found
                               5 for mt= 52 e= 3.000E+07
      ```

- `acelst`   Warnings:

   1. The incident energy grid is not monotonic for this angular distribution
      0: Bad Ang. Dist.

      ```
       ACELST WARNING - Processing Ang.Dist.MT          2
                        E-grid non-monotonic   1.000000000E+01 1.000000000E+01
      ```

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